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CHINA'S INFRASTRUCTURE MARKET

Issues and Background

China has one of the world's largest markets for infrastructure projects, and Beijing plans to spend as much as $200 billion on infrastructure-related equipment, technologies, and expertise through the end of the decade. Competition in the key infrastructure sectors--including transportation, telecommunications, and energy--is increasingly intense.

Transportation

Beijing is engaged in an extensive modernization of its transportation equipment and infrastructure to eliminate the severe bottlenecks hindering its overall economic performance. China is planning to spend up to $40-50 billion on capital construction and technological renovation through the year 2000. Transportation-related joint ventures and coproduction arrangements with the West are the linchpin to Beijing's strategy, as Chinese officials rely on transfers of foreign advanced technologies to replace antiquated assembly lines with more modern, automated production equipment. The automobile and aviation sectors have benefited the most, attracting some 90 percent of the roughly $7 billion worth of joint venture and coproduction deals struck with Western firms to date.

The expansion in joint ventures and coproduction projects with the West is not proceeding rapidly enough, however, to meet domestic demand, which we estimate could average $20-25 billion a year through 1995, based on past purchasing patterns and current spending plans. As a result, China will continue to import substantial amounts of transportation equipment through the 1990s--probably between $4 billion and $6 billion annually--and, by the turn of the century, will remain a net importer of transportation-related goods. The near-term prospects for direct sales of transportation equipment appear brightest, particularly in the aviation sector as Beijing takes steps to alleviate the strains on domestic airliner routes. At the same time, Chinese press reports indicate the Minister of Communications announced in January 1993 that foreign investment in transportation infrastructure would be encouraged, possibly setting the stage for expanded US, European, and Japanese sales of heavy construction equipment and production technology to China. The move will also increase the number of infrastructure-related joint ventures in which foreign companies, for the first-time, will be allowed to have a majority stake.

US Angle. Beijing's plans could enable the United States--already the largest supplier of transportation equipment to China--to solidify its position in these markets. Indeed, the more than $3.4 billion in US exports of transportation equipment to China during 1991 and 1992 exceeded total transportation exports between 1986 and 1990, according to UN and US statistics, with roughly $2.8 billion in aircraft purchases alone. US commercial prospects over the longer term are also likely to be enhanced by the formation of new joint ventures--primarily in the aircraft sector--and particularly by US willingness to transfer more advanced technology than Japanese and European competitors. Some US executives worry, however, that rapid gains in China's transportation industry may enable it to expand exports and eventually capture a share of US export markets in East Asia and the Third World, particularly of automobiles and automobile parts.

Energy

Beijing may spend as much as $65 million by the year 2000 on energy and power generation projects, including oil, natural gas, and coal development; eight nuclear power plants; roughly 15 hydroelectric facilities; and more than 20 thermal power plants. China's inability to raise energy production sufficiently to meet rapidly rising demand will ensure opportunities for new foreign investment, lending, and equipment sales--and a gradual lessening of the country's traditional emphasis on self-sufficiency.

US Angle. The United States is well placed to benefit from the increasing sales and investment opportunities in China. The United States holds 65 percent of the market, which may be worth between $5 and $8 billion over the next seven years. US firms' technical expertise is likely to allow them to continue dominating China's market for oil exploration and extraction technologies, particularly seismic survey, heavy drilling equipment, and enhanced oil recovery technologies as China opens the Tarim Basin to joint oil exploration. In addition, China's plans to renovate existing coal mines and develop new ones will provide a market for US coal-washing facilities, continuous miners, and safety equipment worth more than $3 billion. The Chinese have also expressed interest in US investment in their commercial nuclear development programs--which are currently dominated by European and Japanese companies--encouraging US businessmen to bid on a set of commercial reactors to be constructed in Guangdong Province, China's export powerhouse.

Telecommunications

Beijing has budgeted $42 billion in investment in the telecommunications sector through the year 2000 as a prerequisite to sustaining rapid economic growth, according to Chinese press. Key national projects include upgrading China's switching capacity, installing 16 long-distance fiber-optic trunks and 2000 small aperture ground satellite stations, and adding three million cellular subscribers. China will rely heavily on imports--which amounted to $2.6 billion in 1992, according to UN trade data--to satisfy this demand. Beijing also looks increasingly to joint ventures and coproduction arrangements as a source of technical expertise and telecommunications equipment.

US Angle. The United States' competitive position in China's telecommunications market is weak compared to those of its European and Japanese competitors. US manufacturers in 1993 accounted for only an 11-percent share of sales, according to official trade data. China's recent loosening of import restrictions--as evidenced by the revocation last year of the internal directive that had severely limited US participation--may restore US opportunities in China's telecommunications expansion. Chinese press reporting also suggests that China now looks to the United States first in many instances for advanced technologies, including digital switching, fiber optics, and cellular and radio communications. The erosion of the Ministry of Posts and Telecommunications' traditional monopoly over the sector is increasing the number of Chinese partners with which US firms can do business.